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ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON, VA 22209

EXAMINER

JAGANNATHAN, MELANIE

ART UNIT PAPER NUMBER

2666

DATE MAILED: 10/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

10

Office Action Summary

Application No.

09/305,452

Applicant(s)

ASO ET AL.

Examiner

Melanie Jagannathan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/06/1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims **1-5**, drawn to load balancing and channel assignment, classified in class 370, subclass 468.
 - II. Claims **6** and **7**, drawn to alternate path, classified in class 370, subclass 228.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I has separate utility such as the use of channel assignment to control the signal flow in a communications network by separating the signals into first traffic signals and second traffic signals in order to optimize use of the output links. Group II has separate utility such as the use of alternate paths in a telephony system when a fault occurs in the signal loop. The alternate loop is used in order to resume normal operation of the system. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Mr. James N. Dresser on October 2, 2002 a provisional election was made without traverse to prosecute the invention of Group II, claims 6

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and 7. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-5 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the **cancellation of claims** to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

3. Claim 6 is objected to because of the following informalities: in lines 14 and 15 of claim 6, it is recited that the data corresponding to said line delay time is stored to said unit. From the context, it appears the phrase "in said unit" is intended in place of the phrase "to said unit". If that is the intent of the applicant, the applicant is requested to make a proper amendment to the claim language. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "said data" in 15. There is insufficient antecedent basis for this limitation in the claim. It is not clear if the transmitting data or the receiving data is being referred to in line 15. The applicant is requested to make a proper amendment to the claim language.

Claim 7 recites the limitation "said data terminal device" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is not clear if the data terminal device as in line 6 of claim 6 or the opposing data terminal device as in line 15 of claim 6 is being referred to in line 2. The applicant is requested to make a proper amendment to the claim language.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riedel et al. U.S. Patent Number 5,748,615 in view of McDonald et al. U.S. Patent Number 6,442,166.

Referring to claim 6, the claimed means for controlling the switching of a plurality of lines in a line-switching unit is anticipated by Riedel et al. where a line unit (see Figure 1, element AE) is connected to input trunks (elements E1 to En) in a switching network (see Figure 1, element SN). The claimed means for storing data transmitted to the line-switching unit is anticipated by a memory means (see Figure 2, element SP) in which a memory area is provided for each connection. See column 7, lines 47-51. The claimed means for allocating data from data terminal device to plurality of lines is anticipated by a multiplexer (element MUX) connected to the memory control means (element MMU) where the outputs of the signal branches are connected to allocate the data to the output trunks (elements A1-An). See column 7, lines 11-17.

The reference Riedel et al. discloses all the limitations of the claim except for a line unit comprising a means for separately controlling a clock for transmitting data and a clock for receiving data. McDonald et al. disclose a network including a clock to calculate timing when the data is transmitted and when the data is received in order to determine lateness of the head-of-the-line cell for each connection. See column 2, lines 1-14. The determining of the cell lateness comprises a step of calculating a time deviation for a cell which can be calculated either when the cell arrives or when it is scheduled to leave. The clock for transmitting data is

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anticipated by the time deviation for a cell being calculated when the cell is scheduled to leave and the clock for receiving data is anticipated by the time deviation for a cell being calculated when the cell arrives. See column 2, lines 32-46 and column 3, lines 6-19. The timing at cell transmission and at cell arrival is needed. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to calculate timing when the data is transmitted and when the data is received. One of ordinary skill in the art would be motivated to do this as it allows for proper flow control and maintains the synchronization of the system.

Riedel et al. discloses all the limitations of the claim except for a means for measuring a line delay time of a plurality of lines in the line unit, the data corresponding to the line delay time being stored in the line unit and the data being transferred to an opposing data terminal device through the plurality of lines by a timing determined for each of the plurality of lines. McDonald et al. disclose a method including means of measuring the lateness of the head-of-the-line cell for each connection and transferring this information to a scheduler where it is stored in order to identify the latest cell. The method includes transmitting the outgoing cells according to the lateness estimated by the lateness estimator (Figure 1, element 1). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to measure the line delay time and transmit the data according to the measured delay. One of ordinary skill in the art would be motivated to do this since it prevents loss of data and maintains performance of the system.

Referring to claim 7, Riedel et al. disclose all the limitations of the claim except for a line-switching unit including a clock for transmitting data to a device that is controlled to correspond to the line speed when receiving data from the line. McDonald et al. disclose a

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network where the lateness of the head-of-the-line cell is measured according to a Variation Fluctuation Smooth algorithm (VFS). This algorithm comprises synchronizing inter-departure times of cells according to DS1 rate. See column 4, lines 50-59. The clock times for each DS1 stream are uniformly spread over the DS1 assembly time. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the transmission clock controlled to correspond to the line speed. One of ordinary skill in the art would be motivated to do this since it allows for the rate to be increased or decreased if needed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 703-305-8078. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached 703-308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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MJ

October 10, 2002

Seema S. Rao

Seema S. Rao
Supervisory Patent Examiner
AU 2666
October 10, 2002